



07-19-04

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AT ATTORNEY DOCKET NO.  
4263.0238

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PATENT APPLICATION  
09/833,016

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of: Shilin Chen  
Serial No.: 09/833,016  
Filing Date: April 10, 2001  
Group Art Unit: 2128  
Examiner: Hugh M. Jones  
Title: **FORCE-BALANCED ROLLER-CONE BITS,  
SYSTEMS, DRILLING METHODS, AND DESIGN  
METHODS**

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**Mail Stop AMENDMENT**  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Dear Sir:

EXPRESS MAIL CERTIFICATE  
NO.: EV 323467837 US

I hereby certify that this paper or fee is being deposited with the United States Postal Service "Express Mail Post Office to Addressee" service under 37 CFR §1.10 on the date indicated above and is addressed to the Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

Name: Willie Jiles  
Willie Jiles

Date: July 16, 2004

07/21/2004 AWONDAF1 00000023 09833016

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INFORMATION DISCLOSURE STATEMENT

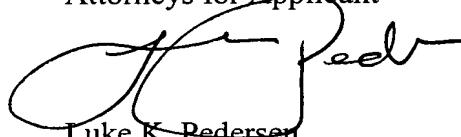
Applicant respectfully submits this Information Disclosure Statement and attached PTO Form 1449 and requests, pursuant to 37 C.F.R. §§1.56, 1.97 and 1.98 and Manual of Patent Examining Procedure § 2001.06(c), and that the references listed on the attached PTO-1449 form be considered and cited in the examination of the above-identified application. The subject matter of the instant Application is involved in Civil Action No. 4-02CV269 in the United States District Court for the Eastern District of Texas, Sherman Division, styled *Halliburton Energy Services, Inc. v. Smith International, Inc.* (the "Litigation").

The attached PTO-1449 form includes documents relating to the Litigation and other documents. Applicant requests that such documents be considered and cited in the examination of the above-identified patent application. Copies of these references are also enclosed for the convenience of the Examiner. Furthermore, pursuant to 37 C.F.R. § 1.97(h), no representation is made that these references qualify as prior art or that these references are material to the patentability of the present application.

This Information Disclosure Statement is submitted after the Final Office Action mailed March 1, 2004. Pursuant to 1.97(d) and 1.17(p), the stipulated fee of \$180.00 is enclosed herewith. The Commissioner is hereby authorized to charge any additional fee or credit any overpayment to Deposit Account No. 50-2148 of Baker Botts L.L.P. in order to effectuate this filing.

Respectfully submitted,

BAKER BOTTS L.L.P.  
Attorneys for Applicant



Luke K. Pedersen  
Reg. No. 45,003

Date: 7/15/04

Correspondence Address

Customer Number: **31625**  
Attorney Docket No.: 074263.0238

PTO-1449 Information Disclosure Citation In an Application	Application No. 09/833,016	Applicant(s) Shilin Chen
	Docket Number 074263.0238	Group Art Unit 2128
		Filing Date April 10, 2001

## U.S. PATENT DOCUMENTS

	DOCUMENT NO.	DATE	NAME	CLASS	SUBCLASS	FILING DATE
A.	1,209,299	12/19/1916	Hughes	--	--	--
B.	1,263,802	04/23/1918	Reed	--	--	--
C.	1,394,769	10/25/1921	Sorensen	--	--	--
D.	2,117,679	05/17/1938	Reed	225	71	12/27/1935
E.	2,122,759	07/05/1938	Scott	225	71	07/16/1936
F.	2,132,498	10/11/1938	Smith	225	71	07/22/1936
G.	2,165,584	07/11/1939	Smith	225	71	07/22/1936
H.	2,230,569	02/04/1941	Howard et al.	225	71	12/20/1939
I.	2,851,253	09/09/1958	Boice et al.	255	347	04/27/1954
J.	4,056,153	11/01/1977	Miglierini	175	376	07/16/1976
K.	4,187,922	02/12/1980	Phelps	175	374	05/12/1978
L.	4,334,586	06/01/1982	Schumacher	175	374	06/05/1980
M.	4,343,371	08/01/1982	Baker III, et al.	175	329	04/28/1980
N.	4,393,948	07/01/1983	Fernandez	175	374	04/01/1981
O.	4,627,276	12/09/1986	Burgess et al.	73	151	12/27/1984
P.	4,815,342	03/28/1989	Brett et al.	76	108	03/28/1989
Q.	5,010,789	04/30/1991	Brett et al.	76	108.2	10/06/1989
R.	5,216,917	06/01/1993	Detournay	73	151	07/11/1991
S.	5,305,836	04/04/1994	Holbrook et al.	175	39	04/08/1992
T.	5,311,958	05/17/1994	Isbell et al.	175	341	09/23/1992
U.	5,415,030	05/16/1995	Jogi et al.	73	151	04/08/1994
V.	5,605,198	02/25/1997	Tibbitts et al.	175	432	04/28/1995
W.	5,767,399	06/01/1998	Smith et al.	73	152.11	03/25/1996
X.	5,813,485	09/29/1998	Portwood	175	430	06/21/1996
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Z.	6,142,247	11/07/2000	Reamer	175	340	07/19/1996

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EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP § 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to the applicant.		

PTO-1449 <b>Information Disclosure Citation in an Application</b>	Application No. <b>09/833,016</b>	Applicant(s) <b>Shilin Chen</b>		
	Docket Number <b>074263.0238</b>	Group Art Unit <b>2128</b>	Filing Date <b>April 10, 2001</b>	

**U.S. PATENT DOCUMENTS**

	<b>DOCUMENT NO.</b>	<b>DATE</b>	<b>NAME</b>	<b>CLASS</b>	<b>SUBCLASS</b>	<b>FILING DATE</b>
A.	6,241,034	06/01/2001	Steinke et al.	175	331	09/03/1998
B.	6,374,930	04/23/02	Singh et al.	175	374	06/08/2000
C.	6,401,839	06/01/2002	Chen	175	57	03/10/2000
D.	6,516,293	02/04/2003	Huang et al.	703	10	03/13/2000
E.	6,527,068	03/01/2003	Singh et al.	175	431	08/16/2000
F.	6,533,051	03/18/2003	Singh et al.	175	371	09/07/1999
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H.	2004/0104053 A1	06/03/2004	Chen	175	341	03/08/2003

**FOREIGN PATENT DOCUMENTS**

	<b>DOCUMENT NO.</b>	<b>DATE</b>	<b>COUNTRY</b>	<b>CLASS</b>	<b>SUBCLASS</b>	<b>TRANSLATION</b>	
						<b>YES</b>	<b>NO</b>
I.	SU 1654515 A1	03/29/1988	SU	E21B	10/16	X	
J.	SU 1691497 A1	05/30/1988	SU	E21B	10/16	X	
K.	EP 0384734 A1	08/29/1990	EPO	E21B	10/46	X	
L.	GB 2241266 A	08/28/1991	GB	E21B	10/46	X	

**NON-PATENT DOCUMENTS (Including Author, Title, Source, and Pertinent Pages)**

M.	Russian bit catalog listing items "III 190,5 T-ЦВ-1" and "III 109,5 TKZ-ЦВ", (prior 1997)
N.	L.E. Hibbs, Jr., et al, <i>Diamond Compact Cutter Studies for Geothermal Bit Design</i> , (Nov. 1978)
O.	M.C. Sheppard, et al., "Forces at the Teeth of A Drilling Rollercone Bit: Theory and Experiment", Proceedings: 1988 SPE Annual Technical Conference and Exhibition; Houston, TX, USA, Oct. 2-5, 1988, Vol. DELTA, 1988, pp 253-260 (18042), XP002266080, Soc Pet Eng AIME Pap, Publ by Soc of Petroleum Engineers of AIME, Richardson, TX, USA (1988)
P.	Adam T. Bourgoyne Jr et. al., "Applied Drilling Engineering", Society of Petroleum Engineers Textbook Series (1991)
Q.	J. P. Nguyen, "Oil and Gas Field Development Techniques: Drilling" (translation 1996, from French original 1993)
R.	T.M. Warren, et al., "Drag-Bit Performance Modeling", SPE Drill Eng., Vol. 4, No. 2, pp 119-127 (15618), XP002266079 (1989)
S.	"Making Hole", part of Rotary Drilling Series, edited by Charles Kirkley (1983)
T.	T.M. Warren, "Factors Affecting Torque for a Roller Cone Bit", JPT J PET Technol, Vol. 36, No. 10, pp 1500-1508 (1984)
U.	"Drilling Mud", part of Rotary Drilling Series, edited by Charles Kirkley (1984)
V.	H.G. Benson, "Rock Bit Design, Selection and Evaluation", presented at the spring meeting of the pacific coast district, American Petroleum Institute, Division of Production, Los Angeles, May, 1956

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AUS01:341770.1

PTO-1449 <b>Information Disclosure Citation in an Application</b>	Application No. <b>09/833,016</b>	Applicant(s) <b>Shilin Chen</b>
	Docket Number <b>074263.0238</b>	Group Art Unit <b>2128</b>

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	<b>DOCUMENT NO.</b>	<b>DATE</b>	<b>NAME</b>	<b>CLASS</b>	<b>SUBCLASS</b>	<b>FILING DATE</b>
A.						

**NON-PATENT DOCUMENTS (Continued)**

B.	J.C. Estes, "Selecting the Proper Rotary Rock Bit", Journal of Petroleum Technology, Nov., 1971, pp1359-1367	
C.	D.K. Ma, "A New Method of Description of Scraping Characteristics of Roller Cone Bit", Petroleum Machinery, July, 1988 (English Translation with original Chinese version attached)	
D.	Wilson C. Chin, "Wave Propagation in Petroleum Engineering" (1994)	
E.	Sikarskie, et al., "Penetration Problems in Rock Mechanics", ASME Rock Mechanics Symposium, 1973	
F.	Dykstra, et. al., "Experimental Evaluations of Drill String Dynamics", SPE 28323, 1994	
G.	Kenner and Isbell, "Dynamic Analysis Reveals Stability of Roller Cone Rock Bits", SPE 28314, 1994	
H.	Brochure entitled "Twist & Shout", (SB2255.1001), 4 pages	
I.	B.L. Steklyanov, et al., "Improving the Effectiveness of Drilling Tools", Series KhM-3, Oil Industry Machine Building, pub. Central Institute for Scientific and Technical Information and Technical and Economic Research on Chemical and Petroleum Machine Building. Tsintikhimneftemash, Moscow, 1991 (translated from Russian)	

**LITIGATION DOCUMENTS****DATE**

J.	Plaintiff's Original Complaint for Patent Infringement and Jury Demand, filed September 6, 2002 in the United States District Court for the Eastern District of Texas, Sherman Division, Civil Action No. 4-02CV269, <i>Halliburton Energy Services, Inc. v. Smith International, Inc.</i> , 4 pages	09/06/2002
K.	Answer and Counterclaim of Smith International, filed March 14, 2003, in the United States District Court for the Eastern District of Texas, Sherman Division, Civil Action No. 4-02CV269, <i>Halliburton Energy Services, Inc. v. Smith International, Inc.</i> , 6 pages	03/14/2003
L.	Response of Plaintiff and Counterclaim Defendant to Defendant's Counterclaim of Declaratory Judgment, filed April 3, 2003, in the United States District Court for the Eastern District of Texas, Sherman Division, Civil Action No. 4-02CV269, <i>Halliburton Energy Services, Inc. v. Smith International, Inc.</i> , 3 pages	04/03/2003
M.	First Amended Answer and Counterclaim of Smith International, filed October 9, 2003, in the United States District Court for the Eastern District of Texas, Sherman Division, Civil Action No. 4-02CV269, <i>Halliburton Energy Services, Inc. v. Smith International, Inc.</i> , 8 pages	10/09/2003
N.	Memorandum Opinion of Judge Davis, signed February 13, 2004, in the United States District Court for the Eastern District of Texas, Sherman Division, Civil Action No. 4-02CV269, Halliburton Energy Services, Inc. v. Smith International, Inc., 37 pages (including fax cover sheet)	02/19/2004
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